

## A Green-backed Heron with red soft parts

by D. R. Calder

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Records of Ardeidae with their soft parts coloured red or pink occur sporadically in the literature involving a number of species. As the records are not numerous, it may be as well to record an instance from Port Shepstone, Natal, South Africa on 29th September 1951. I was rowing on the Umzimkulu River near the town, when a Green-backed Heron *Butorides striatus* flew suddenly from the fringing trees out over the river, passing behind the boat before turning upstream and overtaking. Although I was without binoculars the bird was close enough for me to see that the bill, legs and feet were bright red, a feature that I have never otherwise observed in this species. This has been recorded however in Surinam by Haverschmidt (*Ibis*, 1953: 699) and for records from the Kariba Lake and Aldabra Atoll see Benson & Penny (*Phil. Trans. R. Soc. B* 260, 1971: 447). The phenomenon appears to be a temporary one, related to the onset of breeding.

## Sexual size dimorphism in *Alauda razae*

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Selander (1966) has reviewed the occurrence of sexual dimorphism in size among birds, and shows that this is often well marked in insular species; further evidence is contained in the paper by Bock (1970). It is worth drawing attention to a particularly good example of this phenomenon which has apparently not been previously noticed as such. The species concerned is the lark *Alauda razae*, which is confined to the islet of Razo in the Desertas group of the Cape Verde Islands. Meinertzhagen (1951) remarks on the long bill of this bird, and suggests that it is adapted for digging, but does not comment on sexual dimorphism in bill length; Alexander (1898) and Bannerman & Bannerman (1968) list male and female measurements separately, but without comment. The extent of dimorphism is, in fact, of considerable interest, since it is in marked contrast to other members of the genus, and, apparently, most other larks. Bill length shows the greatest dimorphism, and this was clearly apparent even from visual inspection of the series of *A. razae*. A bill length difference between the sexes of 20.66% was found in *A. razae* as against 3.45% in *A. gulgula* and probably little more in *A. arvensis* (inspected but not measured). In *Galerida cristata*, which is probably a close relative (Hall 1963), the difference found was 3.34%. There was no overlap between the sexes in *A. razae* in any of the measurements (bill, wing or tarsus) taken.

I agree entirely with Hall (1963) in her transfer of *razae* to *Alauda*. Nevertheless, the comparison would probably still hold good if de Naurois (1969) were correct in his view that *Pseudalaemon fremantlii* is the closest relative of *A. razae*. Few skins of this species were available, but out of seven specimens of *P. f. fremantlii*, the two females (mean bill 19.25) fell within the range of the five males (mean bill 18.32), and of eight *P. f. megaensis*, the three female measurements (mean bill 16.93) were also within the range of the five males

(mean bill 17.72). Although more measurements are clearly desirable, it is evident that males and females overlap substantially in size, and are unlikely to differ by a large amount. Inspection of a wide range of other larks (including several insular races) has failed to reveal any others showing obvious strong sexual dimorphism in bill length with the notable exception of the Spike-heeled Lark (*Certhilauda albofasciata*) and Long-billed Lark (*C. curvirostris*) of southern Africa. Size dimorphism of the two latter species is well known and exceeds that of *A. razae*; bill length difference in a short (6♂, 4♀) series of *C. curvirostris* measured was 24.53%. Since *Certhilauda* species inhabit a continental land mass, their dimorphism has presumably evolved in a different way from that in *A. razae*.

*Alauda razae* is an inaccessible bird, with a small population. Nevertheless, should the opportunity occur, it would be interesting to carry out field observations on foraging behaviour in this species, to clarify the difference in feeding ecology between the sexes. (Field work seems equally desirable for the two *Certhilauda* species, although in this case, breeding biology may be the crucial aspect).

Details of measurements taken are given in the table below; bills were measured from the feathers, and wings pressed flat to give maximum chord. Percentage differences were calculated on the basis that the mean for the larger sex = 100%. In all cases but one, the male measurements were larger.

#### Measurements of *Alauda razae*, *A. g. gulgula* and *Galerida cristata*

Species and number measures		♂			♀			Percentage difference
		Mean	Standard deviation	Standard error of mean	Mean	Standard deviation	Standard error of mean	
<i>A. razae</i> 12♂ 10♀	Bill	14.86	0.88	0.25	11.79	0.39	0.13	20.66
	Wing	82.84	1.15	0.33	75.80	2.40	0.80	8.50
	Tarsus	21.14	0.65	0.19	19.14	0.44	0.15	9.46
<i>A. g. gulgula</i> 32♂ 32♀	Bill	12.47	0.72	0.13	12.04	0.71	0.13	3.45
	Wing	87.81	3.59	0.64	84.03	3.14	0.55	4.30
	Tarsus	23.36	1.31	0.23	23.42	1.06	0.19	0.26 (♀ larger)
<i>Galerida cristata</i> 17♂ 17♀	Bill	16.19	0.77	0.19	15.65	0.86	0.21	3.34
	Wing	103.82	2.79	0.70	98.60	1.87	0.47	5.03
	Tarsus	24.69	0.85	0.21	24.65	0.84	0.21	0.16

#### References:

- Alexander, B. 1898. An Ornithological Expedition to the Cape Verde Islands. *Ibis* (7) 4: 74-118.
- Bannerman, D. A. & Bannerman, W. M. 1968. *History of the birds of the Cape Verde Islands. (Birds of the Atlantic Islands. Vol. 4).* Edinburgh: Oliver & Boyd.
- Bock, W. J. 1970. Microevolutionary sequences as a fundamental concept in macroevolutionary models. *Evolution* 24: 704-722.
- De Naurois, R. 1969. Notes brèves sur L'avifaune de L'Archipel du Cap-Verte. Faunistique, endémisme, écologie. *Bull. Inst. Fond. Afr. Noire Sér. A. Sci. Nat.* 31: 143-218.
- Hall, B. P. 1963. The status of *Spizocorys razae* Alexander. *Bull. Brit. Orn. Cl.* 83: 133-134.
- Meinertzhagen, R. 1951. Review of the Alaudidae. *Proc. Zool. Soc. London* 21: 81-132.
- Selander, R. K. 1966. Sexual dimorphism and differential niche utilisation in birds. *Condor* 68: 113-151.